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<b>TRANSMITTAL FORM</b> (to be used for all correspondence during pendency of filed application)		U.S. Department of Commerce Patent and Trademark Office	Application Number	10/822,563
			Filing Date	April 8, 2004
			First Named Inventor	Baki Acikel
			Group Art Unit Number	Not yet known
			Examiner Name	Not yet known
Total Number of Pages in This Submission		7 *	Attorney Docket Number	22994-07841

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Attorney/Reg. No.:	Michael W. Farn, Reg. No. 41,015	Dated:	JUNE 28, 2004

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Baki Acikel, Troy Taylor and Robert A. York  
APPLICATION NO.: 10/822,563  
FILING DATE: April 8, 2004  
TITLE: Fabrication of Parallel Plate Capacitors Using BST Thin Films  
EXAMINER: Not yet known  
GROUP ART UNIT: Not yet known  
ATTY. DKT. NO.: 22994-07841

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**Under 37 CFR §§ 1.56 and 1.97-98**

SIR:

Pursuant to the provisions of 37 CFR §§ 1.56 and 1.97-98, enclosed herewith is modified form PTO/SB/08A listing references for consideration by the Examiner. Enclosed is a copy of each non-U.S. patent listed reference that may be material to the examination of this application, and for which there may be a duty to disclose. Please advise if you wish to have copies of any listed U.S. patent(s).

The filing of this Information Disclosure Statement shall not be construed as a representation regarding the completeness of the list of references, or that inclusion of a reference in this list is an admission that it is prior art or is pertinent to this application, or that a search has been made, or as an admission that the information listed is, or may be considered to be, material to patentability, or that no other material information exists, and shall not be construed as an admission against interest in any manner.

This Information Disclosure Statement is being filed:

- ☒ within three months of the filing date of the application, or date of entry into the national stage of an international application, or before the mailing date of a first office action on the merits, whichever event last occurred;

- ☐ before the mailing of a first official action after the filing of a request for continued examination (RCE) under 37 CFR § 1.114;
- ☐ after three months of the filing date of this national application or the date of entry of the national stage in an international application, or after the mailing date of the first official action on the merits, whichever event last occurred, but before the mailing date of the first to occur of either: (1) a final action under 37 CFR § 1.113; or (2) an action that otherwise closes prosecution in the application, and:
  - ☐ attached hereto is the fee set forth under 37 CFR § 1.17(p) for submission of this Information Disclosure Statement under 37 CFR § 1.97(c); OR
  - ☐ Applicant certifies pursuant to 37 CFR § 1.97(e) that:
    - ☐ each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement; OR
    - ☐ no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing this certification after making reasonable inquiry, no item of information contained in this Statement was known to any individual designated under 37 CFR § 1.56(c) more than three months prior to the filing of this Statement;
- ☐ on or before the payment of the issue fee but after the mailing date of the first to occur of either: (1) a final action under 37 CFR § 1.113; (2) a notice of allowance under 37 CFR § 1.311; or (3) an action that otherwise closes prosecution in the application, and:
  - ☐ Applicant certifies pursuant to 37 CFR. § 1.97(e) that:
    - ☐ each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement; or
    - ☐ no item of information contained in this Information Disclosure Statement was cited in a communication from a

foreign patent office in a counterpart foreign application and, to the knowledge of the person signing this certification after making reasonable inquiry, no item of information contained in this Statement was known to any individual designated under 37 CFR § 1.56(c) more than three months prior to the filing of this Statement; AND

- ☐ attached hereto is the fee set forth under 37 CFR §1.17(p) for submission of this Information Disclosure Statement under 37 CFR. § 1.97(c); OR
- ☐ after the payment of the issue fee. Applicant requests that the information contained in this Information Disclosure Statement be placed in the file according to 37 CFR § 1.97(i), although the information may not be considered by the USPTO.
- ☒ This application relies, under 35 U.S.C. § 120, on the earlier filing date of prior application No. 10/765,578, filed on January 26, 2004, and the references cited therein are hereby referenced, but are not required to be provided in this application under 37 CFR § 1.98(d).
- ☐ Each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application, and the communication was not received by any individual designated in 37 CFR § 1.56(c) more than thirty days prior to the filing of this Information Disclosure Statement. 37 CFR § 1.704(d).
- ☒ Applicant submits that no fee is required for the consideration of this Information Disclosure Statement.

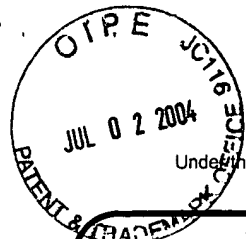
Consideration of the listed references and favorable action are solicited.

Respectfully submitted,  
BAKI ACIKEL et al.

Dated: JUNE 28, 2004

By: Michael W. Farn

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Substitute for form 1449A/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

**Complete if Known**

Application No.	10/822,563
Filing Date	April 8, 2004
First Named Inventor	Baki Acikel
Art Unit	Not yet known
Examiner Name	Not yet known
Attorney Docket Number	22994-07841

Sheet 1 of 3

### U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document No. Number - Kind Code <sup>2</sup> (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		US-5,721,700	02-24-1998	Katoh
		US-5,790,367	08-04-1998	Mateika et al.
		US-6,077,737	06-20-2000	Yang et al.
		US-6,300,654 B1	10-09-2001	Corvasce et al.
		US-6,383,858 B1	05-07-2002	Gupta et al.
		US-6,432,794 B1	08-13-2002	Lou
		US-6,452,776 B1	09-17-2002	Chakravorty

### FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> - Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY.	Name of Patentee or Applicant of Cited Document	T <sup>6</sup>

### OTHER REFERENCES - NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>6</sup>
		Acikel, Baki et al., "A New High Performance Phase Shifter using (Ba,Sr) <sub>1-x</sub> TiO <sub>3</sub> Thin Films," <i>IEEE Microwave and Wireless Components Letters</i> , Vol. 12, No. 7, July 2002, pages 237-239.	
	1	Acikel, Baki et al., "BST Varactor Design and Fabrication," project funded by DARPA FAME Program, 1 page [online], [retrieved on 2004-06-28]. Retrieved from the Internet <URL: <a href="http://my.ece.ucsb.edu/yorklab/Projects/Ferroelectrics/Devices/bstdevicedesign.htm">http://my.ece.ucsb.edu/yorklab/Projects/Ferroelectrics/Devices/bstdevicedesign.htm</a> >.	
	2	Acikel, Baki et al., "Overview of Program," DARPA FAME Program, 8 pages [online], [retrieved on 2004-06-23]. Retrieved from the Internet <URL: <a href="http://my.ece.ucsb.edu/yorklab/Projects/Ferroelectrics/Devices/DeviceDesign.pdf">http://my.ece.ucsb.edu/yorklab/Projects/Ferroelectrics/Devices/DeviceDesign.pdf</a> >.	
	3	Acikel, Baki et al., "Technology Comparison," DARPA FAME Program, 6 pages [online], [retrieved on 2004-06-23]. Retrieved from the Internet <URL: <a href="http://my.ece.ucsb.edu/yorklab/Projects/Ferroelectrics/Devices/VaractorComparison.pdf">http://my.ece.ucsb.edu/yorklab/Projects/Ferroelectrics/Devices/VaractorComparison.pdf</a> >.	

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				Application No.	10/822,563
				Filing Date	April 8, 2004
				First Named Inventor	Baki Acikel
				Art Unit	Not yet known
				Examiner Name	Not yet known
Sheet	2	of	3	Attorney Docket Number	22994-07841

OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published			T <sup>6</sup>
		Erker, ErichG. et al., "Monolithic Ka-Band Phase Shifter Using Voltage Tunable BaSrTiO <sub>3</sub> Parallel Plate Capacitors," <i>IEEE Microwave and Guided Wave Letters</i> , Vol. 10, No. 1, January 2000, pages 10-12.			
	4	IMS2000 Workshop "Ferroelectric Materials and Microwave Applications," 1 page [online], [retrieved on 2004-06-28]. Retrieved from the Internet <URL: <a href="http://my.ece.ucsb.edu/yorklab/Projects/Ferroelectrics/IMS2000%20Workshop/ims2000_workshop.htm">http://my.ece.ucsb.edu/yorklab/Projects/Ferroelectrics/IMS2000%20Workshop/ims2000_workshop.htm</a> >.			
		Liu, Yu et al., "BaSrTiO <sub>3</sub> Interdigitated Capacitors for Distributed Phase Shifter Applications," <i>IEEE Microwave and Guided Wave Letters</i> , Vol. 10, No. 11, November 2000, pages 448-450.			
		Liu, Yu et al., "High-performance and Low-cost Distributed Phase Shifters Using Optimized BaSrTiO <sub>3</sub> Interdigitated Capacitors," Electrical and Computer Engineering Dept., Materials Dept., University of California at Santa Barbara, Santa Barbara, CA 93106, 14 pages [online], [retrieved on 2003-06-24]. Retrieved from the Internet <URL: <a href="http://my.ece.ucsb.edu/yorklab/Publications/pubs.htm">http://my.ece.ucsb.edu/yorklab/Publications/pubs.htm</a> >.			
	5	Nagra, Amit S. et al., "Distributed Analog Phase Shifters with Low Insertion Loss," <i>IEEE Transactions on Microwave Theory and Techniques</i> , Vol. 47, No. 9, September 1999, pages 1705-1711.			
		Padmini, P. et al., "Realization of High Tunability Barium Strontium Titanate Thin Films by RF Magnetron Sputtering," <i>Applied Physics Letters</i> , Vol. 75, November 1999, pages 3186-3188.			
		Serraiocco, J. et al., "Tunable Passive Integrated Circuits Using BST Thin Films," presented at IFFF 2002, International Joint Conference on the Applications of Ferroelectrics, Kyoto, Japan, May 2002, 10 pages [online], [retrieved on 2003-06-24]. Retrieved from the Internet <URL: <a href="http://my.ece.ucsb.edu/yorklab/Publications/pubs.htm">http://my.ece.ucsb.edu/yorklab/Publications/pubs.htm</a> >.			
		Taylor, T.R. et al., "Impact of thermal strain on the dielectric constant of sputtered barium strontium titanate thin films," <i>Applied Physics Letters</i> , Vol. 80, No. 11, 18 March 2002, pages 1978-80.			
		Taylor, T.R. et al., "Optimization of RF Sputtered Barium Strontium Titanate (BST) Thin Films for High Tunability," presented at MRS Conference, Fall 1999, 2 pages [online], [retrieved on 2003-06-24]. Retrieved from the Internet <URL: <a href="http://my.ece.ucsb.edu/yorklab/Publications/pubs.htm">http://my.ece.ucsb.edu/yorklab/Publications/pubs.htm</a> >.			
		Taylor, T.R. et al., "RF Sputtered High Tunability Barium Strontium Titanate (BST) Thin Films for High Frequency Applications," presented at ISIF 2000 Conference, Aachen, Germany, March 2000, 2 pages [online], [retrieved on 2003-06-24]. Retrieved from the Internet <URL: <a href="http://my.ece.ucsb.edu/yorklab/Publications/pubs.htm">http://my.ece.ucsb.edu/yorklab/Publications/pubs.htm</a> >.			
	6	Taylor, Troy et al., "BST Growth Optimization," project funded by DARPA FAME Program, 2 pages [online], [retrieved on 2004-06-28]. Retrieved from the Internet <URL: <a href="http://my.ece.ucsb.edu/yorklab/Projects/Ferroelectrics/Materials/growthopt.htm">http://my.ece.ucsb.edu/yorklab/Projects/Ferroelectrics/Materials/growthopt.htm</a> >.			

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	7	Taylor, Troy et al., "Loss Model for BST Test Capacitors," DARPA FAME Program, 6 pages [online], [retrieved on 2004-06-23]. Retrieved from the Internet <URL: <a href="http://my.ece.ucsb.edu/yorklab/Projects/Ferroelectrics/Materials/LowFrequency.pdf">http://my.ece.ucsb.edu/yorklab/Projects/Ferroelectrics/Materials/LowFrequency.pdf</a> >.	
	8	Taylor, Troy et al., "Materials Issues To Be Explored," DARPA FAME Program, 10 pages [online], [retrieved on 2004-06-23]. Retrieved from the Internet <URL: <a href="http://my.ece.ucsb.edu/yorklab/Projects/Ferroelectrics/Materials/growth.pdf">http://my.ece.ucsb.edu/yorklab/Projects/Ferroelectrics/Materials/growth.pdf</a> >.	
	9	York, Bob et al., "Thin-Film Ferroelectrics: Deposition Methods and Applications," presented at the International Microwave Symposium in Boston, MA, June 2000, page 20 [online], [retrieved on 2004-06-23]. Retrieved from the Internet <URL: <a href="http://my.ece.ucsb.edu/yorklab/Projects/Ferroelectrics/IMS2000%20Workshop/Bob-oral.pdf">http://my.ece.ucsb.edu/yorklab/Projects/Ferroelectrics/IMS2000%20Workshop/Bob-oral.pdf</a> >.	
	10	York, Professor Bob, "Books and Book Chapters," Microwave Electronics Lab, 4 pages [online], [retrieved on 2004-06-23]. Retrieved from the Internet <URL: <a href="http://my.ece.ucsb.edu/yorklab/Publications/pubs.htm">http://my.ece.ucsb.edu/yorklab/Publications/pubs.htm</a> >.	
		York, R. et al. "Microwave Integrated Circuits using Thin-Film BST," presented at ISAF Conference, Honolulu, Hawaii, July 21-August 2, 2000, 6 pages [online], [retrieved on 2003-06-24]. Retrieved from the Internet <URL: <a href="http://my.ece.ucsb.edu/yorklab/Publications/pubs.htm">http://my.ece.ucsb.edu/yorklab/Publications/pubs.htm</a> >.	
		York, Robert A. et al., "Synthesis and Characterization of (Ba <sub>x</sub> Sr <sub>1-x</sub> )Ti <sub>1-y</sub> O <sub>3+z</sub> Thin Films and Integration into Microwave Varactors and Phase Shifters," <i>Journal of Integrated Ferroelectrics</i> , Vol. 34, April 10, 2000, pages 177-188.	
		York, Robert A. et al., "Thin-Film Phase Shifters for Low-Cost Phased Arrays," presented at Workshop on Affordability and Cost Reduction for Radar Systems, Huntsville, Alabama, April 2000 and at URSI Conference, Salt Lake City, Utah, July 2000, 10 pages [online], [retrieved on 2003-06-24]. Retrieved from the Internet <URL: <a href="http://my.ece.ucsb.edu/yorklab/Publications/pubs.htm">http://my.ece.ucsb.edu/yorklab/Publications/pubs.htm</a> >.	

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